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A Pilot Project in Curriculum Development for "Work Experience" and "Occupations" Courses for Educable Mentally Retarded Students.

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A 2-year project constructed a work study program for educable mentally retarded (EMR) high school students. The first phase developed courses of study, instructional materials, and teaching procedures. the second phase established a functional vocational training program in five high schools with approximately 150 EMR seniors (IQ range 53 to 78, ages 17-8 to 19-2) and had classroom instruction on occupation and work experience (two 60-minute periods per day) which included experimental use of the material developed in the first phase. The evaluation of the program and a followup on graduated pupils were done in the third phase. Of the 150 pupils, 52% were placed in full-time competitive employment, 32% were in training situations and 15% were unemployed when the project ended. Optimal employment times were early spring and fall. Instructional materials developed were a series of progressively more complicated job application forms, job descriptions of work for EMR's increasing in reading difficulty from third to fifth grade level, short work-orientated study lessons adapted for role playing, and an interest inventory and a commercially produced booklet on human relations both revised to fourth grade reading levels. (SN)

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FINAL REPORT
Project No. ERD-310-65
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A PILOT PROJECT IN CURRICULUM DEVELOPMENT FOR "WORK EXPERIENCE" AND "OCCUPATIONS" COURSES FOR EDUCABLE MENTALLY RETARDED STUDENTS

August 1967

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
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Marvin C. Groelle, Supervisor
Programs for the Mentally Retarded

August 1967

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Oakland Unified School District

Oakland, California

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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INTRODUCTION

The Oakland Unified School District (Kdg. - 12th grade) has conducted a secondary school program for educable mentally retarded (EMR) youth for the past twenty to thirty years. For the past eleven years this program has been conducted under the standards and mandatory provisions of the California Education Code, Sections 6902 and 6904.

Prior to 1959, however, there was little effort directed toward practical vocational training, placement and follow up of senior high school EMR pupils. During the 1959-60 school year a number of innovations, designed to improve the occupational adequacy and employment opportunities for these pupils, were initiated. These innovations included the following:

1. Assignment of one teacher of EMR pupils to devote half-time to vocational training and placement of senior high school EMR pupils.

2. Assignment of one Counselor from the California Division of Vocational Rehabilitation (DVR) to devote half-time to work cooperatively with the Oakland Public Schools (OPS) in the vocational training and placement of senior high school EMR pupils.

3. Selection of one senior high school with an enrollment of approximately 60 EMR pupils, grades 10 through 12, as the site for a one hour per day pilot Work Experience program.

4. Implementation of a required course, "Occupations," for all twelfth grade EMR pupils in each of the five senior high schools having such classes.

During the 1962-63 school year the OPS Teacher on Special Assignment and the DVR Counselor were assigned full-time to the pilot program and a second senior high school was included in the one hour per day Work Experience program. At this point it was decided to concentrate efforts on the approximately 30 twelfth grade EMR pupils in these two schools. This effort was continued through the 1964-65 school year.

As a result of the interest and initial success of these pilot programs, consideration was given to expanding the vocational training, placement and follow up program to five senior high schools; beginning with the 1965-66 school year. This expansion would involve approximately 100 EMR youth and seven Special Class

teachers. A number of problems, however, had become apparent as a result of the two pilot programs. These problems included:

1. Lack of a sequential, well organized and uniform outline for "Course of Study" for the courses "Occupations" and "Work Experience."

2. Lack of instructional materials specifically designed to meet the needs of EMR pupils in the area of vocational education.

3. Lack of knowledge regarding appropriate teaching methods, techniques and strategies on the part of the Special Class teachers who were to conduct the program.

4. Lack of understanding of the unique purposes of the work experience phase of the program on the part of parents and the classified school personnel (custodians, cafeteria managers, gardeners, etc.) under whose supervision the pupils were to receive on-the-job training.

5. Lack of formal agreement between the Oakland Public Schools and the State Department of Rehabilitation for an extended period of time in order to assure the placement and follow up services of DVR.

Faced with the solution or at least partial resolution of these problems, the Oakland Unified School District applied for approval of a Vocational Education Project funded under Section 4 (c) of the Vocational Education Act of 1963 (P.L. 88-210). The objectives and purposes of this Project were:

General Objectives

1. To train educable mentally retarded students for successful employment in less skilled service and repetitive type vocations, such as custodians and matron's assistants, laundry workers, institutional and domestic housekeeping aides, food handling and food preparation assistants, assemblers, etc.

2. To develop vocational skills, attitudes and knowledges necessary for successful employment.

3. To develop better adjustment techniques so that the EMR may gain respect for vocational training, work, responsibility toward the employer, and excellence of performance regardless of level of occupational skill and wages paid.

4. To develop, to the highest skill level possible, such

attributes as neatness, personal grooming, punctuality, satisfactory inter-personal relationships and job skills.

5. To raise the academic skill levels of the EMR to a point consistent with realistic vocational interests and abilities. (Such adademic areas as vocational mathematics, reading, writing and adequate oral expression should be enhanced to a functional level because these academic skills are vital to the vocational placement of many low ability students.)

To accomplish these general objectives, it was thought necessary to have related instructional materials for classroom use. The development and production of such materials, therefore, became the specific objectives of this Project. The instructional materials were to be geared to the course outlines and the students academic achievement levels. The materials were also to become basic tools of instruction for such areas as completing job application forms, specific reading vocabularies, mathematical concepts and skills related to vocational needs, learning responsibilities of employees, labor laws, union affililations, wise use of salaries, social security information, etc. In order to accomplish these specific objectives, the following was planned:

Specific Objectives

1. Job application forms representative of those used in industry and service-type jobs were to be developed for classroom use as duplicated forms and transparencies.

2. Job descriptions of work realistic for attainment by EMRs were to be developed or rewritten to a third to fourth grade vocabulary level.

3. Interest inventory forms were to be rewritten to a third to fourth grade vocabulary level.

4. Job placement and follow up methods and materials were to be developed.

5. Group counseling techniques, including role-playing utilizing a tape recorder, were to be developed and analyzed.

6. Job application techniques, illustrated by use of 35mm. slides, were to be produced.

7. Teachers guides covering the courses "Occupations" and "Work Experience" were to be written to coincide with all materials produced.

8. Commercially produced textbooks were to be evaluated and, where allowed, rewritten to a third to fourth grade vocabulary level and geared to the course outlines.

It was the opinion of the Special Education personnel working in the high schools that an effective program of job training, vocational education and placement leading to gainful employment of EMR pupils, could be implemented if suitable instructional materials could be produced and if methods of instruction could be related to a curriculum including classroom instruction and an on-the-job training program.

METHOD

The general design of the Project encompasses a three-phase approach. These three phases were:

Phase One: Development of suitable courses of study, instructional materials and teaching procedures necessary for implementation of the planned program.

Phase Two: Establish in five high schools, with a total enrollment of approximately 100 EMR twelfth grade pupils, a functional vocational training program including classroom instruction and an on-campus Work Experience program. These combined two-period (120 min. per day) courses of "Occupations" and "Work Experience" to be the "laboratory" for experimental use of the courses of study, instructional materials and teaching procedures.

Phase Three: Evaluation of the program, including the courses of study, the instructional materials, teaching procedures and job placement and follow up procedures.

The Project was structured so that Phase One was conducted between June 21 and July 16, 1965 and ran concurrently with a Summer Workshop for in-service teacher training. Four teachers and a supervisor of instruction (Project staff) spent this time writing the courses of study, reviewing commercially prepared materials and developing new materials to be used during Phase Two. Plans for implementing the program and suggestions for appropriate teaching procedures were outlined during this four week period. A DVR Counselor conferred with the Project staff throughout this planning workshop in order to assure a compatible working relationship between the two agencies and to assist in formulating a workable transition for the pupils from school services to DVR services.

Phase Two began in September 1965 with the opening of the 1965-66 school year and continued until June 1967. There were 78 pupils in the 1965-66 Project group, and 72 pupils in the 1966-67 Project group. In-service meetings were held in each of the five participating high schools during the first month of the fall term. All school personnel, certificated and classified, who were to be involved attended these meetings. The meetings were convened by the principal of each school and an attempt was made to explain the program and elicit cooperation. In addition, smaller meetings were held at each school site approximately every two months throughout the duration of the Project. These smaller

meetings included progress reports or case reviews on each pupil enrolled in the program, discussion of the effectiveness of materials and teaching techniques and the formation of realistic job placement plans for each pupil. Teachers were encouraged to experiment with various approaches to the courses of study and the materials and to alter or suggest changes in either of these.

An integral part of Phase Two was the work experience activity. Each EMR pupil was given an opportunity to select and apply for an on-campus job from among the variety of jobs available. The job selection procedure involved a class tour of the school campus to ascertain possible work situations and a visit to the class by the various classified personnel under whose supervision pupils could work. During these visits the various school jobs were described, qualifications discussed and future employment possibilities were listed. The pupils were then allowed to "apply" for the job or work station for which they felt best qualified. For added motivation and a realistic touch to the work experience phase of the program, each pupil was allowed to earn from 50¢ to 70¢ per hour for work performed. This incentive allowance was raised to between 75¢ and $1.25 per hour for the 1966-67 school year. This raise in the incentive allowance was made necessary because of competition from the Neighborhood Youth Corps (NYC) program being operated within the schools. The NYC paid pupils a standard wage of $1.25 per hour and the Project pupils were being attracted to the NYC program because of the higher wage for similar work. Each EMR pupil was paid on a sliding scale and allowances were raised or lowered according to attitudes, punctuality, attendance, work habits, etc.

A work-sampling technique was built into the work experience activity. This was accomplished by encouraging and sometimes insisting that pupils rotate to a different work station at various intervals throughout the training period. The purposes for job rotation were to allow parents and pupils to become more aware of abilities and disabilities and to aid the pupils and teachers to discover and test abilities as well as new work interests in actual job situations. It was also felt that rotation of jobs would provide the pupils with numerous opportunities to practice job application and termination procedures and to adjust to new work requirements and new supervisory personnel. In most instances, job rotation occurred at least twice during each school year.

Phase Three consisted of two parts: 1) evaluation and revision of instructional materials and teaching procedures and, 2) job placement and follow up of pupils leaving the program.

The first set of instructional materials and suggested teaching procedures (those produced during the summer of 1965) were evaluated and revised during the summer of 1966. New courses of study and revised materials were available for use during the 1966-67 school year. The Project staff completed the second revision during the summer of 1967.

At this point it must be mentioned that the final revision of the courses of study, the instructional materials and the suggested teaching procedures have been prepared for use at both eleventh and twelfth grade levels. The original Project proposal was to include only twelfth grade EMR pupils. However, following the program's development and two years of operation (school years 1965-66 and 1966-67), the principals and teachers involved in the program as well as the DVR staff recommended that the program be enlarged to include both eleventh and twelfth grade pupils.

This recommendation was considered by the OPS Department of Special Education and the Superintendent's staff and an affirmative response to this recommendation was given. Consequently, beginning with the fall semester of the school year 1967-68, this program will more than double the number of EMR pupils being served and the number of professional staff involved. Four courses will be offered to approximately 250 EMR pupils and the Project materials have been organized accordingly. These courses have been designated as:

Eleventh Grade	Twelfth Grade
"Occupational Math"	"Occupations"
"Work Experience Education - Exploratory" (on-campus)	"Work Experience-Exploratory II" (off-campus)

Seventy-eight pupils of the 1965-66 Project group and 72 pupils of 1966-67 Project group have completed their training and are presently involved in the placement and follow up portion of Phase Three. It is planned to continue placement and follow up services for these two groups of pupils for a period of two years following their termination from the school program.

To assure adequate staffing for placement and follow up services, an additional Special Class teacher from the Oakland Public Schools and an additional DVR Counselor were assigned full-time to this responsibility. At the present time, therefore, the placement and follow up staff consists of four full-time professional workers: two from OPS and two from DVR.

To assure continuation of the joint efforts between these two agencies, a "Cooperative Agreement Between the Department of Rehabilitation and the Oakland Unified School District" was executed. This agreement became effective September 1966 and will remain in effect until June 30, 1971.

RESULTS

Results of the Project will be treated in terms of the eight Specific Objectives which were delineated in the Project proposal under the statement of intent, "To develop training materials which will assist educable mentally retarded youth in developing the vocational skills and attitudes necessary to obtain and retain a job." Each Specific Objective is restated and the results indicated.

Objective One. Job application forms representative of those used in industry and service-type jobs were to be developed for classroom use as duplicated forms and transferred to transparencies for overhead projection.

Results: An analysis was made of the vocabulary in thirty different commonly used application forms:

a. 24 industrial employment application blanks.
b. Three forms from the California State Employment Service.
c. Two Federal Social Security and Tax Account Number forms.
d. One Application for Driver's License of the California Department of Motor Vehicles.

The results of this analysis were used to develop transparencies and compile a booklet containing:

a. An alphabetized list of easier words (third grade level and below).
b. An alphabetized list of more difficult words (above third grade level).
c. Several suggested methods for teaching these words.
d. Four sample application blanks, each with increasing degrees of vocabulary difficulty.
e. Each sample application form was transferred to transparencies for overhead projection.
f. Additional transparencies were prepared from the Internal Revenue Service Tax Table, Employee Withholding Exemption Certificate, Tax Form 1040A, a sample U.S. budget, Table of Income Tax Rates and a sample payroll check.

Objective Two. Job descriptions of work realistic for attainment by EMRs were to be developed or rewritten to a third or fourth grade vocabulary level.

Results:

a. Eleven job descriptions consistent with the on-campus work stations available to the pupils were written at a readability level between grade 2.2 and 2.9.
b. Eight job descriptions of realistic on and off-campus work were written at a readability level between third and fourth grade.
c. Ten job descriptions of realistic community oriented work were written at a readability level of fourth grade and above.

Objective Three. Interest Inventory forms were to be rewritten to a third to fourth grade reading vocabulary level.

Results: The 1956 revision of the Lee-Thorup, "Occupational Interest Inventory," Intermediate Form (grade 7 to adult) was rewritten to a readability level of fourth grade or below. This Interest Inventory in its adapted form was administered to 56 twelfth grade pupils during the fall semester of the 1966-67 school year. A discussion of the treatment of results of this adaptation of the Interest Inventory appears in the DISCUSSION section of this report.

Objective Four. Job placement and follow up methods and materials were to be developed.

Results: Two OPS Teachers on Special Assignment and two DVR Counselors were assigned full-time to the placement and follow up of pupils leaving this program. Originally, a return addressed, stamped postcard questionaire was used in an attempt to minimize the number of personal contacts necessary in securing information from students who had left the school program. This method proved to be ineffectual because of the small percentage of returns and because of the incomplete or illegible answers. It became necessary to use telephone or personal contact in order to obtain reliable follow up information.

A continous job placement and follow up service for the 78 pupils who used the services and the materials funded under this Project and who graduated shows the following:

assembler	6	laundry worker	2
longshoreman	1	photographer's assistant	1
mail handler		warehouseman	1
(U.S. Post Office)	6	domestic (house work)	3
nurse's aide	1	truck driver's helper	1
file clerk	2	U.S. Army	1

culinary worker	2	Job Corps	4
janitor	1	married/homemaker	8
construction laborer	1	sheltered workshop	6
mail room aide	1	nurse's aide training	7
service station attendant	1	trade school student (OJT)	2
general laborer	3	junior college student (basic education)	4
nursery worker	1	patient (state hospital - mentally ill)	2
grinder and chipper	1	unable to contact	6
shoe repairman	1	unemployed - not involved in a training program	1
pallet maker	1		N = 78

A continous follow up of the 72 pupils graduated from the program in June 1967 and who used the services and the materials funded under this Project shows the following:

post office mail handler	2	job skill center trainee	2
laboratory aide (mouse handler)	1	trade school student (culinary arts)	4
cannery worker	2	junior college student (basic education	5
married/homemaker	8	in planning stage of placement	28
nurse's aide training	5	unknown - moved	5
clerk/typist (IBM Key Punch Cards)	10		N = 72

Objective Five. Group counseling techniques, including role-playing and utilizing a tape recorder, were to be developed and analyzed.

Results: A set of thirteen "Study Lessons," written to a readability level between third and fifth grade, were developed for the course "Occupational Math" - eleventh grade, and a set of twenty-one "Study Lessons" were developed for the course "Occupations" - twelfth grade. These three to four page lessons were written around situations having to do with job getting and job retaining. These short "stories" or "skits" were used for classroom study, discussion and role-playing. The pupils recorded the role-playing "skits" and used the recordings for replaying and further discussion. A sample of titles selected from these "Study Lessons" follows:

"Jim Gets His Work Permit"	"Leaving the Job"
"Pay Day"	"Money Matters--And How!"
"How to Get a Part-Time Job"	"First Bank Account"

"Joe Gets a New Job"
"Ethel Goes to Work"
"Starting the Job"
"An Interview"
"The Right Man for the Right Job"

The "Study Lessons" and the role-playing activities were enthusiastically received and used by the pupils. The teachers consider them extremely worthwhile materials.

Objective Six. Job application techniques, illustrated by use of 33mm. slides, were to be produced.

Results: This objective was not fulfilled. Time, personnel and equipment required for proper lighting, staging, photography and developing were judged to be excessive in relation to results. It was decided to spend classroom and pupil time in other ways and to purchase commercially prepared film-strips.

Objective Seven. Teachers guides, covering the courses, were to be written to coincide with all materials produced.

Results: Four course outlines were developed and are presently in a format which might be considered a teacher's guide. The guides for the courses "Occupational Math" - eleventh grade and "Occupations" - twelfth grade are organized according to the following heading:

Course Outline	Teaching Procedures	Techniques and Activities	Materials and References

The "Work Experience-Exploratory" course outlines for eleventh and twelfth grades are similar and organized so that the classroom and work experience activities correlate where possible.

Objective Eight. Commercially produced textbooks were to be evaluated and rewritten to a third to fourth grade vocabulary level and geared to the course outline.

Results: Permission was secured from Continental Press, Inc. to rewrite the booklet "Family Relationships." The content of this booklet was used for many of the ideas developed in the "Study Lessons." Numerous other commercially prepared textbooks were evaluated and, where appropriate, references were keyed into the course outlines.

DISCUSSION

This discussion is confined to the more general aspects of the Project - those situations and problems which arose while initiating and carrying the Project to its conclusion.

1. Competition From NYC Programs

During the first year of the Project, each pupil was allowed to earn an incentive allowance of between 50¢ and 70¢ per hour. An NYC program was begun by the school district two months after the Work Experience program and the Project materials for the course "Occupations" were initiated for EMR pupils. Because slightly over forty per cent of the EMR pupils were also eligible for the NYC program and because the NYC program allowed three hours of work per day at a standard pay rate of $1.25 per hour, there was concern for holding these pupils in the Work Experience program or convincing those given NYC jobs to relinquish them in favor of the Work Experience program. Through the efforts of DVR, arrangements were subsequently made to enable the school district to raise the work experience incentive allowance to a range of between 75¢ and $1.25 per hour. Along with this increase in hourly earnings, several other efforts were made to stress the advantages of the Work Experience program and the Project materials. The following techniques were employed:

a. The term "training allowance" was stressed in conferences with parents and pupils. The provision for moving upward on the earnings scale, depending upon the pupils increasing proficiency, was emphasized.

b. The fact that the courses "Occupations" and "Work Experience" were referred to as part of the pupils educational program and that the courses would continue whether or not a training allowance was paid, was emphasized in conferences with pupils and parents. Because one unit of credit toward meeting graduation requirements was allowed for each of these courses, the idea that they were part of the educational program was more easily explained.

c. It was also stressed that work performed during the work experience hour was a service to the school and that service to the school and community is an adult responsibility in which these young adults were sharing.

d. A specific hour during the school day was set aside for only EMR pupils as the time for assigning them to work

stations. This arrangement minimized the contact these pupils had with NYC pupils and allowed for less comparison between the two rates of pay for doing identical work.

e. The Work Experience teachers were relieved of other quasi-administrative responsibilities to enable them to develop a closer working relationship with the EMR students and the classified school personnel who supervised the pupils work stations.

f. The advantages of job rotation, which provided work experiences in a variety of job areas, was pointed out to pupils and parents.

g. The permanence of the Project materials and the Work Experience program as opposed to the temporary features of NYC work was discussed with EMR pupils.

h. The advantages of DVR counseling and job placement services were stressed.

Toward the end of the second year of the Project, competition from the NYC program had been minimized to the extent that it no longer was a major concern to the Project staff. It appears that a well-structured work oriented program, including adequate instructional materials and time for the Work Experience teacher to supervise, can operate effectively side by side with programs of the NYC nature without disruptive competition. The question of renewed problems arising if the new minimum wage regulations increase NYC wages is still to be faced.

2. Job Rotation

It had been planned to rotate pupils from one work station to another approximately four times per year. Job rotation was intended as a "job sampling technique" so that pupils and school personnel would have numerous opportunities to gage work effectiveness and interest in a variety of work situations. It soon became evident that this plan was difficult to carry out and job rotation continues to be an area of major concern.

The greatest deterrent seems to be the reluctance of the work station supervisors (librarians, custodians, cafeteria managers, etc.) to accept several different pupils during the year for job training on the same job station. This is understandable because it requires time for these persons to become acquainted with and train a new student worker every three or four months; particularly after having guided the first pupil

to a point where that pupil has become proficient and requires a minimum of supervision. The work station supervisors still prefer to train one pupil per year.

During the third month of the Project's operation, a one day In-Service Training Program was held for the supervisors of the various classified personnel. These supervisors evidenced interest and understanding in the program and accepted the purpose for pupils rotating their job training stations. This understanding and interest, however, has not filtered down to the individual classified workers on the various school sites sufficiently to encourage them to accept job rotation as a necessary adjunct to the Work Experience program. Plans continue for future in-service meetings with the hope that increased insight and cooperation may be more fully realized.

3. Job Stations Being Used

At the present time pupils have been assigned to the following sixteen job stations for their work experience activities:

custodian's assistant
matron's assistant
culinary aide (school cafeteria)
cafeteria arrangement and clean-up
gardener's assistant
librarian and bookroom aide
industrial arts and shop clean-up
nursery man's assistant
gym locker room attendant
teacher's aide
audio-visual operator's aide
office assistant
stockroom attendant
messenger
PBK operator
auto shop tool crib attendant

It is hoped that with an increased number of job stations, the opportunities for "job sampling" will be increased and that rotation of pubils from one job to another will be more easily effected.

4. Adaptation of Interest Inventory

Permission was granted by the California Test Bureau to rewrite the 1956 revision of the Lee-Thorup, "Occupational Interest Inventory," Intermediate Form (grades 7 to adult). The Dale-Chall "Formula for Predicting Readability," 1948, was used to rewrite this interest inventory to a readability level of fourth grade or below.

This adaptation was accomplished for two reasons. First, to prepare an instrument for helping to assess pupil occupational interests and to use as a device for motivating classroom

discussion regarding realistic job choices. Second, to prepare an instrument which EMR pupils could read and which would allow them to follow standardized administrative testing procedures with a minimum of difficulty, undue time allowances and frustration.

As an aid in assessing results of the use of the adapted inventory, a simple design was initiated for scheduling and administering the instrument. An alternating schedule for administrating the inventories as well as three variations in administration were used. The original published inventory without change in administrative procedures and read by the pupils without teacher assistance (Pub. Pupil Only) was one use of the material. The original published inventory without change but read to the pupils with assistance in comprehension given where necessary (Pub. Tch. Read) was a second use. And the adapted form using the standardized administrative procedure but read by the pupils without any teacher assistance (Revision, Pupil Only) was the third use. Three separate testing periods in five high schools were determined and a rotation of administrative procedures and the instruments were scheduled as follows:

SCHEDULE FOR

LEE THORPE, OCCUPATIONAL INTEREST INVENTORY (Intermediate)

	School 1	Schools 2 & 3	Schools 4 & 5
Test Per. 1 (Oct. 17-21)	Pub. (Pupil only)	Pub. (Tch. Read)	Revision (Pupil only)
Test Per. 2 (Oct. 31 - Nov. 4)	Pub. (Tch. Read)	Revision (Pupil only)	Pub. (Pupil only)
Test Per. 3 (Nov. 14-18)	Revision (Pupil only)	Pub. (Pupil only)	Pub. (Tch. Read)

This testing schedule should have minimized practice effect.

Scoring of all inventories followed the publisher's directions. Results of the variations in form and administrative procedures follow:

Table I contains the means and standard deviations of raw scores for each field of interest. As can be seen, the values obtained for the various editions are quite close. Differences

in means are, in all but one case, less than one raw score unit. Differences between standard deviations are even smaller - from this information it appears that similar interest patterns were obtained regardless of the form of the test used. In part, this would support the effort being attempted - constructing an instrument which is easier to give, yet will yield scores quite similar to the original instrument of the test author.

Occupational Interest Inventory (Lee-Thorpe)
Means and Standard Deviations Obtained in Experimental
Administration of Three Forms of the Test (N = 56)

Table I

	Publisher		Pub. & Help		Simplified	
	M	σ	M	σ	M	σ
Personal-Social	20.59	6.55	19.77	6.65	20.45	6.53
Natural	15.06	5.99	15.16	6.42	15.50	6.10
Mechanical	17.77	6.35	18.94	7.05	17.59	7.30
Business	22.16	9.40	21.56	9.77	21.18	9.60
The Arts	15.32	6.44	14.45	5.45	15.29	6.08
The Sciences	16.54	4.82	16.96	5.00	17.34	4.68

Table II presents the correlation coefficients computed at the three-way matrix showing the relationship between:

1. Scores from publishers tests administered as standardized vs publishers tests administered with teachers help.

2. Publishers tests administered as standardized vs the adapted and controlled vocabulary edition.

3. Publishers tests with teachers help vs the adapted and controlled vocabulary edition.

As can be seen in Table II, there is some variation in the correlation coefficients. These variations are greatest between fields of interest rather then within fields of interest. In two areas the correlations in comparison "three" were the highest. However, in three areas the correlations were highest

in comparison "one." It would seem that, with these patterns of correlations obtained from this type of population, one could conclude that there is an overall moderate level of comparability in scores obtained on the various forms of the tests. It will be noted, however, that one area--science--showed somewhat less consistent scores from one edition to the next. This instability and/or incomparability from one area to another may be related to the remoteness of the subject matter. If this were true, test and retest with the same edition would probably show the same lower correlation coefficients.

Correlation Coefficients Obtained

In Three-Way Comparisons of Three Editions of

The Occupational Interest Inventory (Lee-Thorpe)

(N = 56)

Table II

	Pub. vs Pub. & Help	Pub. vs Simplified	Pub. & Help vs Simplified
Personal-Social	.849	.751	.808
Natural	.733	.725	.695
Mechanical	.606	.735	.792
Business	.886	.920	.899
The Arts	.675	.648	.761
The Sciences	.655	.487	.566

From the foregoing it appears that results of the adapted inventory with the controlled fourth grade or lower vocabulary correlate highly with the publisher's original form when using standardized procedures with the former and teacher assistance with the latter. The adapted form, therefore, seems to be a useful instrument for assessing occupational interests of EMR pupils and seems to furnish reliable results. The primary benefits, however, seem to be the development of an instrument which is less frustrating to pupils with limited reading ability and which allows them to follow standardized administrative procedures while saving time and effort on the part of the teacher by eliminating the necessity for the teacher having to read and explain the publisher's original form.

CONCLUSIONS, IMPLICATIONS, (AND RECOMMENDATIONS)

1. Because most EMR pupils have limited reading abilities (usually fourth grade or lower) and learn more efficiently when reading content is related specifically to their unique day-to-day first hand experiences, they profit less from using instructional materials produced by commercial publishers than from using teacher prepared materials developed in close relationship to local school and community experiences. It therefore appears that much of the instructional materials used in the occupational education and training of EMR pupils will need to be developed by the teachers in the local setting. The success of this Project, using locally prepared and revised materials, seems to justify this conclusion.

2. The majority of EMR pupils leaving school after participating in this Project were placed in competitive employment. Sixty-six pupils were placed in service-type jobs and twelve were placed in jobs directly involved with the production of a product. Of those pupils in training programs on the date of this report, forty-three were in programs leading to employment in service-type jobs while only fifteen were in programs leading to employment in product production work. This would imply that many more service-type jobs requiring the ability to work for and with people are becoming available to EMR youth and that emphasis in areas of successful human relations needs to be a major part of the curriculum and training experiences.

3. Time of year seems to have a relationship to job placement success for EMR youth. It appeared to the Project staff that the majority of job placements were made either prior to the closing of the public schools for summer vacation or during the first few months following the opening of schools for the fall term. One rationale for this finding may be that greater competition for jobs exists during the summer months due to larger numbers of regular high school and college students available for work during this period. It may be that persons involved with vocational training and placement of EMR youth should consider extending the training program through the summer months and confine most placement efforts to the late spring and early fall.

4. Rewarding EMR pupils by using incentive pay for work performed was found to be a successful motivating technique. School attendance, punctuality, work habits, acceptable behavior and performance in job skills were judged to improve when pupils were rated in these areas and when incentive pay was increased as proficiency in these areas increased. Unless incentive

pay scales are somewhat near the level of pay allowed other pupils for comparable work, it seems necessary that EMR pupils, their parents and the total school community must be constantly encouraged to view Work Experience programs as having other and greater benefits than just the money received by the pupils.

5. One of the continuing problems in the operation of this Project was to encourage the classified personnel responsible for supervising the EMR pupils on job stations to accept the philosophy and necessity for job rotation. The "job sampling" aspect of this Work Experience program was the most difficult idea to "sell." The person working directly with the pupil, teaching the job skills and supervising the work, is the key person in the success of this type of program. Much in-service training and constant commendation seems required. Perhaps consideration needs to be given to some method whereby these persons can be given extra pay for attending in-service training sessions.

6. Group counseling techniques, as used in the Project, need to be refined and improved. The use of a tape recorder to record and play back role-playing situations, such as job interviews, being fired from a job, personal and family problems related to job proficiency, etc., did not meet with the degree of success anticipated. It may be that EMR pupils lack the social maturity and sophistication necessary to benefit sufficiently from this technique. The pupils had difficulty in sensing the seriousness and importance of these taped "skits." The short "Study Lessons," written for the Project, were much more successful. EMR pupils apparently respond better to materials which they can read than to role-playing situations where they must use their own imagination in make-believe and impromptu settings. The presence of classmates seemed to be distracting and often led to laughter rather than serious consideration of the problems being portrayed.

7. The goals of a Work Experience program and an accompanying classroom course in occupational education for EMR youth should be to assist these youths to obtain, adjust to and retain employment. The personnel involved in this Project are convinced that most EMR youth, if provided with appropriate classroom instructional materials, a variety of work experiences and assistance in job placement, are capable of achieving these goals.

SUMMARY

This two year Project, designed to develop instructional materials and improve the effectiveness of an on-campus Work Experience and job placement program for EMR youth, was begun in June 1965. Of approximately one hundred fifty pupils (IQ range 53 to 78, CA range 17-8 to 19-2) enrolled in the program during their twelfth year in high school, seventy-eight (52 per cent) were placed in full-time competitive employment, forty-nine (32 per cent) were in training situations and twenty-three (15 per cent) were unemployed and not in training when financial support for the Project ended in July 1967.

The Project was developed in three phases: Phase One included the development of teachers guides for a one hour per day classroom oriented course in occupational information and education, and a one hour per day work experience course. The teaching techniques and materials required to implement the two courses were also developed during this first phase. Phase Two included the use and evaluation of the teaching plans and materials with approximately 150 EMR high school pupils in five separate high schools in the Oakland, California, Unified School District. Phase Three included revision of the teaching plans and materials and the job placement and follow up of pupils completing the program.

Specific Project objectives accomplished included the development, use and evaluation of the following instructional materials:

1. A series of progressively more complicated job application forms in duplicated and transparency form.

2. A series of job descriptions of work realistic for attainment by EMR pupils increasing in level of reading difficulty from about third through fifth grade.

3. An Interest Inventory, rewritten to a fourth grade or below reading level.

4. A series of short "Study Lessons" related to work oriented situations and adapted for role-playing and counseling techniques.

5. A commercially produced booklet, the contents of which discussed problems in human relationships, was adapted and rewritten to a fourth grade or below reading level.

Other Project objectives accomplished were the refinement of job training and placement techniques and an in-service training program for teachers and administrators concerned with the education of EMR youth.

The persons involved in this Project agree that to be successful, on-campus Work Experience programs for EMR youth require a philosophy which allows utilization of total school plant as the educational media. An understanding of and a willingness to assist in the program must be part of the philosophy of all school personnel, lay and professional. A successful program of this nature joins all school district personnel in a team effort in which all persons share the responsibility and are concerned with the education of educable mentally retarded youth.